

## CLAIMS

1. A mold for injection molding a nestable plastic product having a base wall, a rim and a sidewall, wherein the sidewall extends between the base wall and the rim, the  
5 mold comprising:

a plurality of mold parts for configuring a mold cavity for forming the product and at least one gate from which fluid plastic material may be injected into the mold cavity,

wherein the mold cavity comprises a base-wall section for forming the base wall,  
10 a rim section for forming the rim and a sidewall section for forming the sidewall;

wherein the sidewall section includes a plurality of primary flow guides extending at least between the vicinity of the base-wall section and the vicinity of the rim section for directing injected fluid plastic material into portions of the sidewall section between the primary flow guides;

15 wherein the portions of the sidewall section between the primary flow guides include narrow mold cavity sections for forming thin sidewall segments and further include secondary flow guides for directing injected fluid plastic material into the narrow mold cavity sections;

wherein the sidewall includes a plurality of steps that offset at least some of the  
20 thin sidewall segments from one another and the mold cavity includes a corresponding plurality of step sections that offset the narrow mold cavity sections from one another for forming the steps; and

wherein at least some of the step sections include at least some of the secondary flow guides.

2. A mold according to Claim 1, wherein the steps are spaced apart from one another by a dimension approximating but less than the nesting height of the product.

3. A mold according to Claim 1, wherein the steps are perimetric.

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4. A mold according to Claim 1, wherein the steps are perimetric and the perimeters of the steps are in planes that are parallel with the plane of the base wall.

5. A mold according to Claim 1, wherein the steps have an upward slope.

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6. A mold according to Claim 1, wherein the steps have an upward slope of approximately forty-five-degrees and the thin sidewall segments have an upward slope of approximately eighty-eight-degrees.

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7. A mold according to Claim 1, wherein at least some of the secondary flow guides extend from the primary flow guides.

8. A mold according to Claim 7, wherein at least some of the secondary flow guides extend between two of the primary flow guides.

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9. A mold according to Claim 7, wherein at least some of the secondary flow guides extend from only one of the primary flow guides.

10. A process of injection molding a nestable plastic product having a base wall, a rim and a sidewall, wherein the sidewall extends between the base wall and the rim, the process comprising the steps of:

(a) combining a plurality of mold parts to configure a mold cavity for forming the product and at least one gate from which fluid plastic material may be injected into the mold cavity; and

(b) injecting fluid plastic material from the gate into the mold cavity to form the product;

wherein the mold cavity comprises a base-wall section for forming the base wall, a rim section for forming the rim and a sidewall section for forming the sidewall;

wherein the sidewall section includes a plurality of primary flow guides extending at least between the vicinity of the base-wall section and the vicinity of the rim section for directing injected fluid plastic material into portions of the sidewall section between the primary flow guides;

wherein the portions of the sidewall section between the primary flow guides include narrow mold cavity sections for forming thin sidewall segments and further include secondary flow guides for directing injected fluid plastic material into the narrow mold cavity sections;

wherein the sidewall includes a plurality of steps that offset at least some of the thin sidewall segments from one another and the mold cavity includes a corresponding plurality of step sections that offset the narrow mold cavity sections from one another for forming the steps; and

wherein at least some of the step sections include at least some of the secondary

flow guides.

11. A process according to Claim 10, wherein the steps are spaced apart from one another by a dimension approximating but less than the nesting height of the product.

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12. A process according to Claim 10, wherein the steps are perimetric.

13. A process according to Claim 10, wherein the steps are perimetric and the perimeters of the steps are in planes that are parallel with the plane of the base wall.

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14. A process according to Claim 10, wherein the steps have an upward slope.

15. A process according to Claim 10, wherein the steps have an upward slope of approximately forty-five-degrees and the thin sidewall segments have an upward slope of approximately eighty-eight-degrees.

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16. A process according to Claim 10, wherein at least some of the secondary flow guides extend from the primary flow guides.

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17. A process according to Claim 16, wherein at least some of the secondary flow guides extend between two of the primary flow guides.

18. A process according to Claim 16, wherein at least some of the secondary flow guides extend from only one of the primary flow guides.

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19. A nestable plastic product comprising a base wall, a rim and a sidewall that extends between the base wall and the rim wherein sidewall comprises:

a plurality of primary ribs extending at least between the vicinity of the base wall and the vicinity of the rim;

5 a plurality of thin sidewall segments between the primary ribs;

a plurality of secondary ribs adjoining at least some of the thin sidewall segments, wherein the primary and secondary ribs are thicker than the thin sidewall segments; and

a plurality of steps that offset at least some of the adjoined thin sidewall segments from one another;

10 wherein at least some of the steps include at least some of the secondary ribs.

20. A product according to Claim 19, wherein the steps are spaced apart from one another by a dimension approximating but less than the nesting height of the product.

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21. A product according to Claim 19, wherein the steps are perimetric and the perimeters of the steps are in planes that are parallel with the plane of the base wall.

22. A product according to Claim 19, wherein the steps are perimetric.

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23. A product according to Claim 19, wherein the steps have an upward slope.

24. A product according to Claim 19, wherein the steps have an upward slope of approximately forty-five-degrees and the thin sidewall segments have an upward slope of  
25 approximately eighty-eight-degrees.

25. A product according to Claim 19, wherein at least some of the secondary ribs extend from the primary ribs.

26. A product according to Claim 25, wherein at least some of the secondary ribs  
5 extend between two of the primary ribs.

27. A product according to Claim 25, wherein at least some of the secondary ribs extend from only one of the primary ribs.